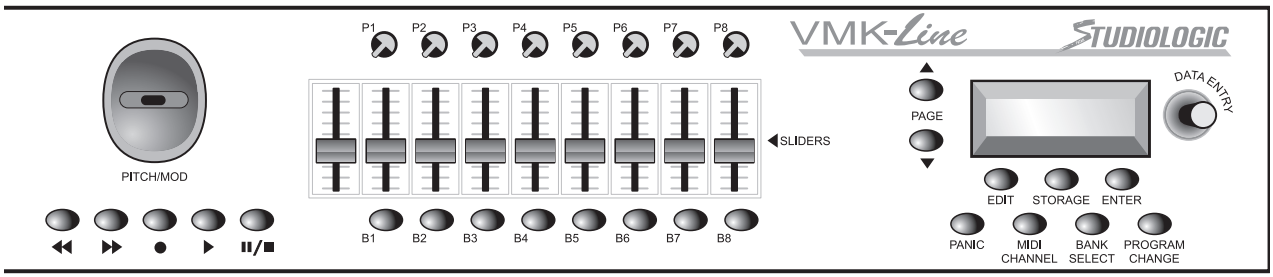
STUDIOLOGIC™
MIDI CONTROLLERS

OWNER'S MANUAL
VMK-149 & VMK-188



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STUDIOLOGIC VMK-149/188

Welcome to the wonderful world of the Studiologic VMK series!
The VMKs are multi-level programmable keyboard controllers The VMK-149 is the world's first keyboard with 49 full-weighted piano keys, and the VMK-188 has an 88-note keyboard. Both have the famous FATAR key action. They are functionally identical except for the number of keys. Both units feature pitch bend, aftertouch, "on the fly" live edits, assignable knobs, buttons and sliders, and 2 independent fully programmable pedal inputs.
Just look at what they have available to assign:

- 8 programmable knobs X 2 banks;
- 8 programmable buttons X 2 banks;
- 9 programmable sliders X 4 banks;
- A 5-button programmable transport section;
- And 3 programmable pedal inputs.

That's a total of 77 assignable controls!

The VMKs are professional keyboards with built-in control surface capability. It is a control surface MIDI keyboard with 3 software presets, 27 user programmable patches, and an unbeatable combination of assignable knobs, buttons, sliders and pedals. It allows you to tweak your sessions to your heart's content. And it's all with a budget-conscious studio in mind.

KEY FEATURES:

- VMK-149: 49 FULL SIZE KEYS with WEIGHTED ACTION
- VMK-188: 88 FULL SIZE KEYS with WEIGHTED ACTION

COMMON FEATURES TO BOTH UNITS:
TOUCH SENSITIVE
PROGRAMMABLE AFTERTOUCH
PITCH BEND
PROGRAM CHANGE / BANK SELECT/ MIDI CHANNEL
9 PROGRAMMABLE SLIDERS
8 PROGRAMMABLE KNOBS
8 PROGRAMMABLE BUTTONS
5 BUTTON PROGRAMMABLE TRANSPORT CONTROL
3 PROGRAMMABLE PEDAL INPUTS
3 SOFTWARE PRESETS:
1- NATIVE INSTRUMENTS B4; 2 - STEINBERG CUBASE;
3 - NATIVE INSTRUMENTS PRO 53
27 USER PROGRAMMABLE PATCHES
DUAL MIDI OUTPUTS
CARRY BAG AND FOOTSWITCH INCLUDED

Controllers

Among the Midi messages (note that on/off is a Midi message) is a set of 128 “continuous controller ”messages (often abbreviated “CC ”). These are mainly used to send the movements of knobs, sliders, pedals, and so forth. For example, a synth’s modulation wheel is sending a CC message which will almost always be CC number 1. *(See list below.)* Each CC has a possible range of 0 –127, so when you move a mod wheel down to its rest position, it should send a CC number 1 message with a value of 0, and when you push it up to its highest point it should send a CC number 1 message with a value of 127. The VMK takes this Midi capability and puts the control in the hands of the user. All of the VMK’s knobs, sliders and pedal inputs may be programed to transmit these CC values.

Certain of the CC numbers are reserved for particular purposes. For instance, CC64 is the sustain pedal. In fact, several of the controllers (64, 65, 66, etc.) are defined as on/off switches rather than as continuous: Your sustain pedal will probably send a CC64 message with a value of 127 when *pressed*, and another CC64 message with a value of 0 when *released*. This comes into play when programing the pedal inputs. Your VMK and a sequencer or audio program can give you an almost unlimited number of routing possibilities to control the various functions of the program(s) you’re using. Check with your software manual for details specific to your need.

Common controller Numbers

1 Modulation Wheel (0-127)

2 Breath Controller (0-127)

4 Foot Controller (0-127)

5 Portamento Time (0-127)

6 Data Slider (0-127)

7 Main Volume (0-127)

8 Balance (0-127)

10 Pan (0-127)

11 Expression (0-127)

16 General Purpose num1 (0-127)

17 General Purpose num2 (0-127)

18 General Purpose num3 (0-127)

19 General Purpose num4 (0-127)

64 Sustain Pedal (0 or 127)

65 Portamento On/Off (0 or 127)

66 Sustenuto Pedal (0 or 127)

67 Soft Pedal (0 or 127)

69 Hold 2 (0 or 127)

80 General Purpose num5 (0-127)

81 General Purpose num6 (0-127)

82 General Purpose num7 (0-127)

83 General Purpose num8 (0-127)

92 Tremolo Depth (0-127)

93 Chorus Depth (0-127)

94 Celeste (Detune) Depth (0-127)

95 Phase Depth (0-127)

96 Data Increment (0 or 127)

97 Data Decrement (0 or 127)

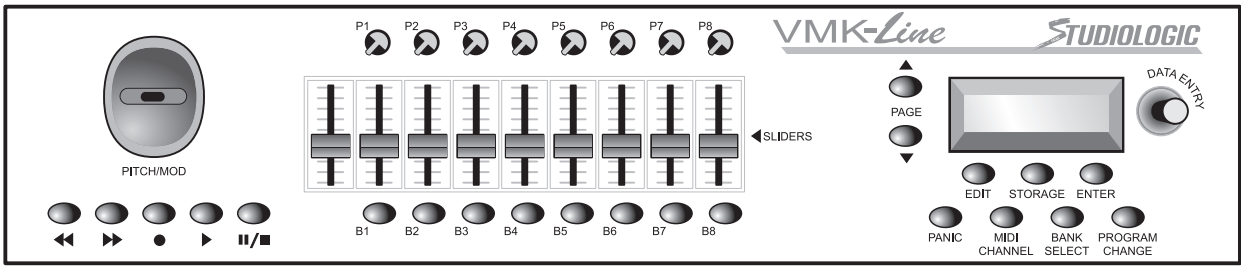
121 Reset all Controllers (0)

122 Local Control On/Off (0 or 127)

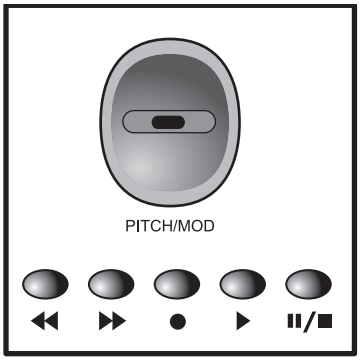
123 All Notes Off (0)

KEYBOARD LAYOUT: *OVERVIEW*

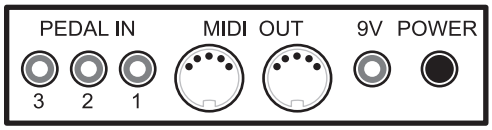
Full Control Panel

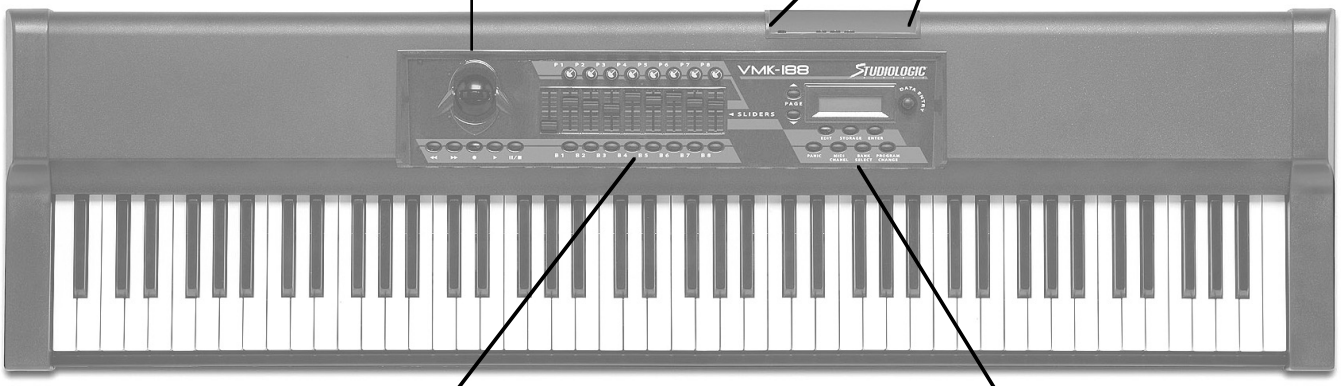


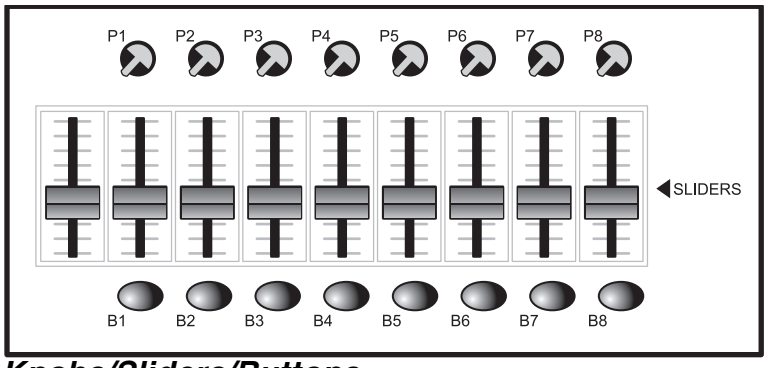
Joystick
Transport Controls



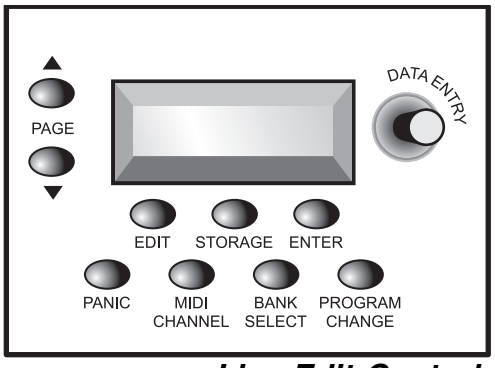
Back Panel







Knobs/Sliders/Buttons

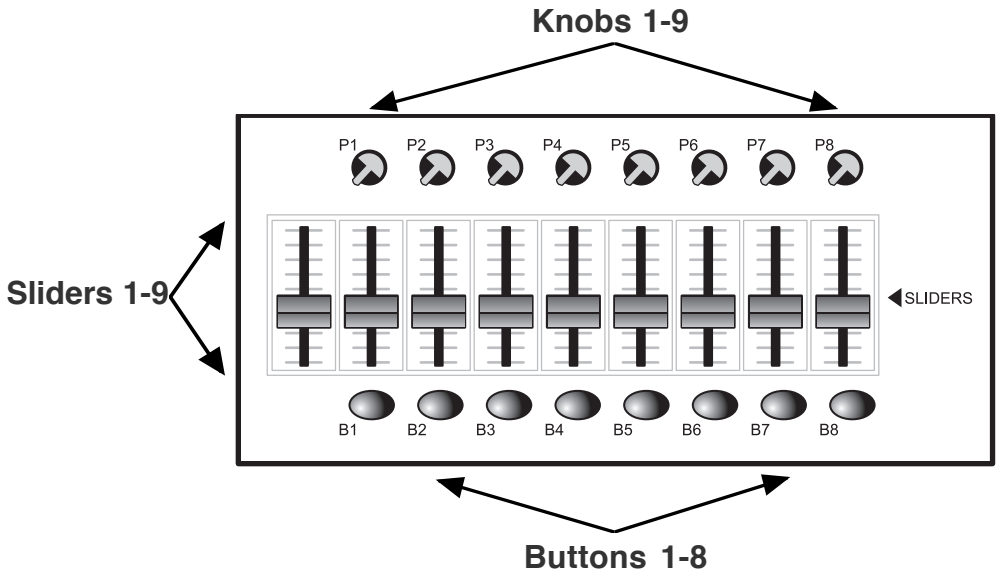


Live Edit Controls

KEYBOARD LAYOUT: DETAILS

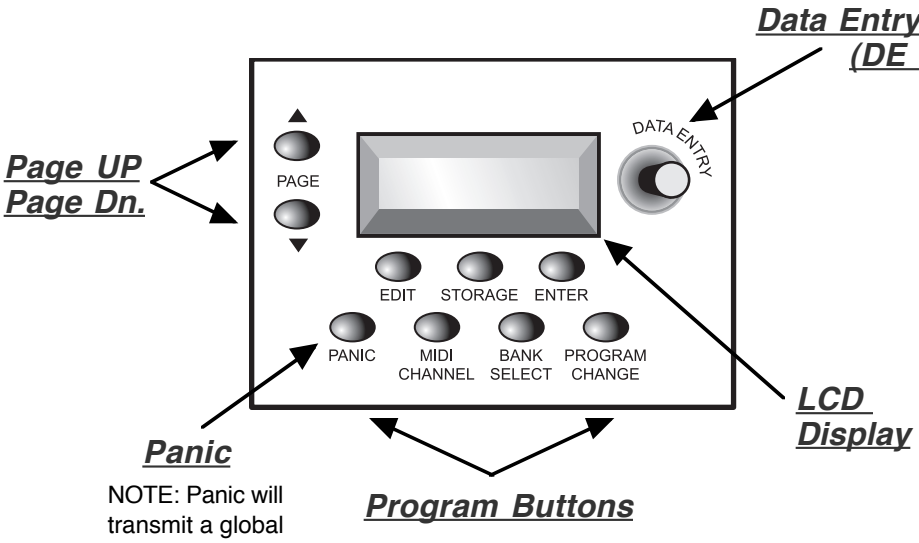
Knobs, Buttons & Sliders

Knobs,buttons, and sliders may be programmed to control anything from a loop on a sampler to reverb depth on a sound module. 8 knobs, 8 buttons, and 9 sliders are available.



Program Controls

The program control section features: A 2 x 16 Lcd display; A convenient rotary knob for data entry, referred to as the DE knob; Page up and page down buttons for moving through the various parameter options of the controller you are programming; Edit, Storage and Enter buttons, key elements when programming your keyboard; And a Panic button if all else fails.

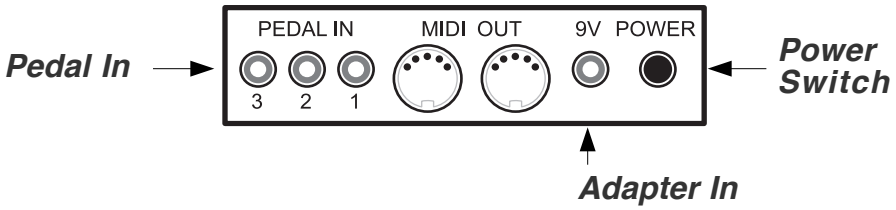


NOTE: Panic will transmit a global All notes off Message.

KEYBOARD LAYOUT: *DETAILS*

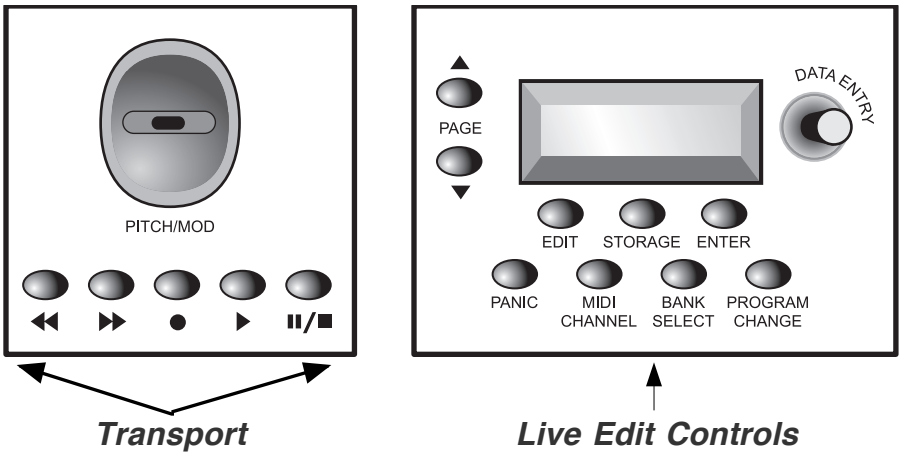
Back Panel

The back panel contains the connective parts of the keyboard: Dual Midi outputs and 3 independent foot controller inputs. The pedal inputs can accept sustain or volume pedals, each capable of sending out a completely different controller message. Pedal inputs can be programmed to accept almost any variety of manufacturers foot pedals regardless of polarity. The power adapter input and power switch are also located in the rear panel.



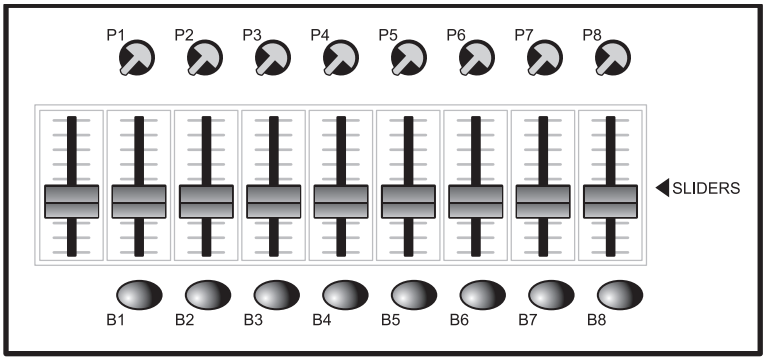
Transport- Live Edit Controls

Transport and Live Edit controls are centrally located for quick access at a gig or in the studio. Simple but powerful, the Transport can easily be programmed to control a sequencer or a drum machine. Live Edit is indispensable for a quick program change, bank select or Midi channel change.



Sliders

Sliders are perhaps the most desirable controls in a studio setting. Each of the 9 sliders may be programmed independently. They can send command specific messages, like volume, to a sound module. Or they can send control messages that may be routed through a sequencer to control various functions of the program you are running. *See your program manual for details.* 4 banks in total x 9 sliders gives you 36 slider commands per patch. *Note: Drawbar is also a Bank.*



Preset Creation: A Summary

Preset creation is an easy process involving the use of the program controls shown in the KEYBOARD LAYOUT section of this manual. You start by choosing a preset number using the DE knob and hitting the ENTER button. **Choose a preset number higher than 3 so as not to overwrite the software presets.** You can either choose an unused number or overwrite a previously written preset.

Once the preset number is selected, you hit the EDIT button to start assigning tasks to whichever controls you select. The LCD panel will tell you to Press or Move Any Controls. You may move or press a knob, a slider, a button, a keyboard key or a pedal. The LCD will tell you what you are programming once you have moved or pressed it.

Now, you will use the Page Up or Down buttons to view the parameters available for assignment. Use the DE knob to select the parameter value you want. When the value is selected, use the Page Up or Down buttons to move to the next parameter. When all parameters for the control have been defined, you will hit the STORAGE button and the LCD will ask if you want to store the parameters you have selected – either NO or YES. Use the buttons underneath YES or NO to make your choice.

If you need to program additional controls for the preset, hit the EDIT button and once again you will be asked to Press or Move Any Controls. Repeat the procedure above for all the controls you desire to program for the preset you are creating.

When all the controls have been assigned to the tasks you want them to accomplish, you will have hit the STORAGE button and selected YES following the programming of the last control. The LCD screen will display a blinking cursor following Preset Num. At this time, you may name your preset (see the Preset Naming section on page 7) or decide to use only the number of the preset (4 – 30). If the number is enough, hit STORAGE again and the LCD will ask "Are You Sure?" Press the button under YES and the controller will return you to the Preset page with your preset number.

If you decide to name the preset, follow the procedure in the Preset Naming section on page 7. The last step is hitting the STORAGE button at which time the LCD will ask, "Are You Sure?" Press the button under YES and the controller will return you to the Preset page with your preset name and number.

It is essential that you remember that YOU MUST PRESS THE STORAGE BUTTON TWICE TO SAVE YOUR PRESET SETTINGS! The first time you will be asked if you want to "Store Parameters." The all-important second time, the LCD will ask, "Are You Sure?" When you hit the YES button that time, your preset is saved.

The following Procedures will help familiarize you with the programming flexibility of the VMK-149/188. They will show you the steps involved in assigning parameter values to the programmable controls of the keyboard. The procedures will show the ease with which you can create presets to control both studio and performance software.

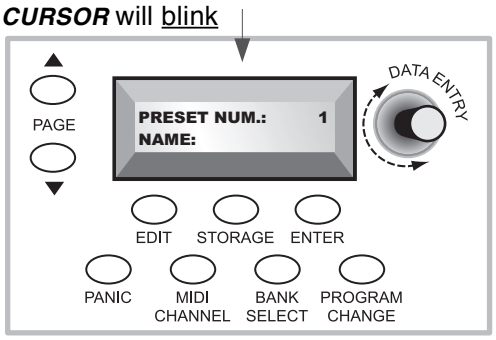
PROCEDURE: PRESET SELECTION

The VMK-149/188 has 27 programmable user presets. Let's look into the two ways of *selecting* a preset.

QUICK SELECT (A)

1) *ROTATE* DATA ENTRY KNOB

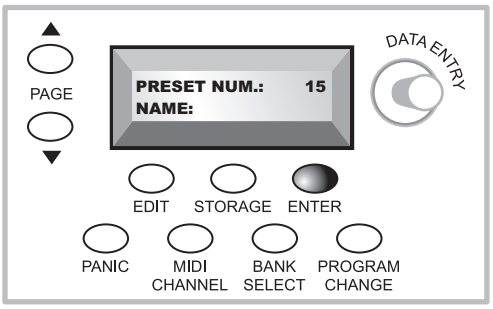
Rotating the **DE** Knob will scroll thru the *Presets*.
The *cursor* will blink.
Scroll to the *Preset* you want.



2)*PRESS* ENTER

Wait until the *cursor* **stops** blinking. *Preset* is now selected.

NOTE: You can preview the *Presets* without making a selection . If you don't Press the Enter Button. the VMK will return to the last *Preset* Selected.

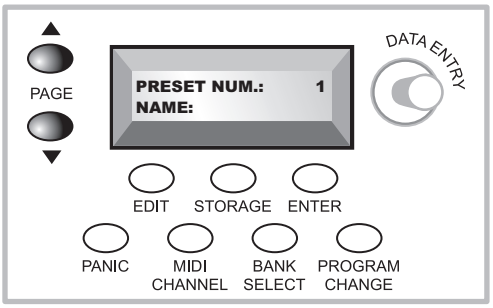


QUICK SELECT (B)

PRESS PAGE Up/Dn.

You may also choose *Presets* sequentially by using the *Page* up or *Page* down Buttons.

NOTE:(1) You must allow the VMK to scan the controls before the selection is complete; **(2)** You can only move thru the Presets one at a time.



PROCEDURE: PRESET NAMING

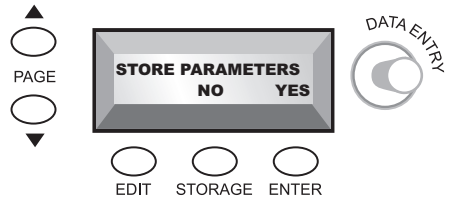
Your VMK has 27 programmable user presets. Each Preset can have a 10 character name. Each name can have any combination of letters or numbers you choose. In this example, we will start from a preset that's already been programmed. You have the option of naming your preset during the editing process. When you've completed your edits and reach the *press storage step (Step 6 in Button Programming, Step 7 in Sliders/Knobs/Pedals, Step 8 in Keyboard),* follow this procedure:

Continued on Page 8

1)*PRESS* STORAGE

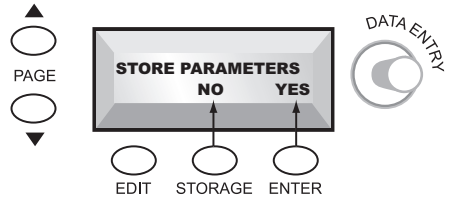
You will save your program to a user preset.

SCREEN CHANGE



Storage and **Enter** buttons now function as **No** or **Yes** buttons.

NOTE: If you select *No* you'll be taken back to the "Press or move any Control" Page.

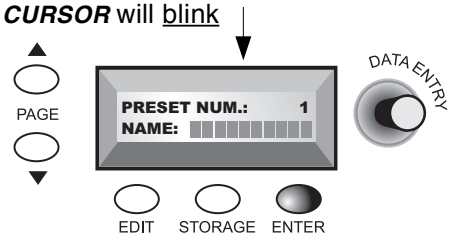


2)*PRESS* ENTER(Yes)

In this example we'll choose *Yes.*

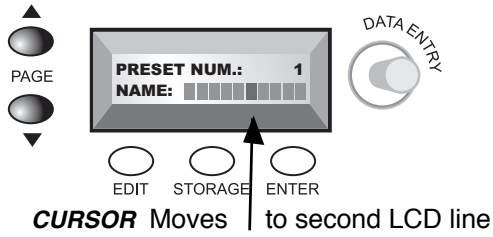
NOTE: If you'd like to move to a different Preset location use the DE knob. THIS WILL COPY ALL PROGRAM DATA TO THE NEW PRESET LOCATION

SCREEN CHANGE



3)*PRESS* PG UP/ PG DN

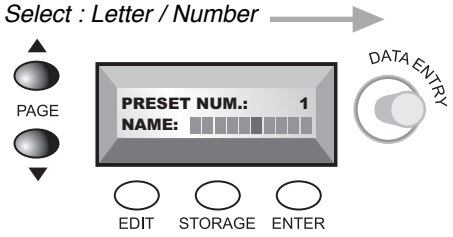
By pressing the *Page Up* or the *Page Down* button you will move the cursor to the Name field of the LCD display



4)NAME PRESET

Name the Preset using the combination of The Page Buttons and the DE Knob. Remember the Name can only be ten characters long

Page UP: moves cursor *Right*
Page DN: moves cursor *Left*
Data Entry Dial: selects *Letter or Number*



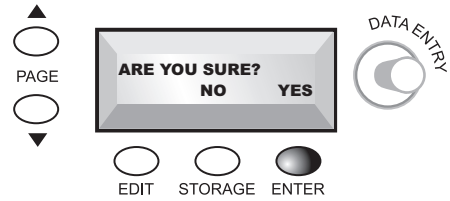
5)*PRESS* STORAGE

You will save your program and its name.

SCREEN CHANGE

6)*PRESS* ENTER (YES)

You will return to the Preset Page with your Named Preset.

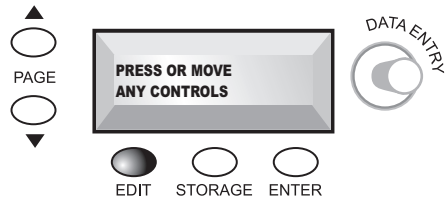


PROCEDURE: KEYBOARD PROGRAMMING

The **VMK-149/188** can store 27 user programmable patches. Not only does each patch contain programming information for buttons, sliders, knobs and pedals, the **KEYBOARD** itself, as a *controller*, can be customized. Each Patch can contain *MIDI Channel, Aftertouch, Transpose, Program Change* and *Bank Select* information.

1)*PRESS* EDIT

SCREEN CHANGE

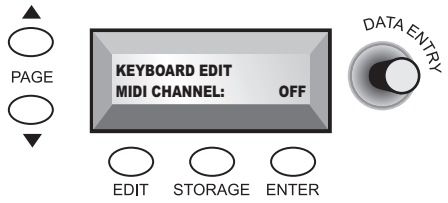


2)*PRESS* KEY

You may *Press* any key on the Keyboard.

SCREEN CHANGE

To adjust the **Midi Channel** use the ***DE*** knob.



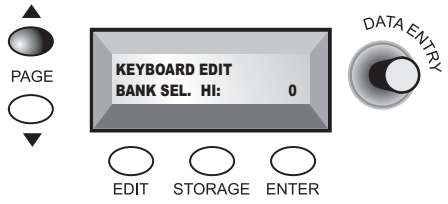
3)*PRESS* PAGE UP

Within each Patch a *Bank Select High* message can be sent .

See your sound source manufacturer's manual for details.

SCREEN CHANGE

To adjust the **Bank Select Hi** value use the ***DE*** knob.



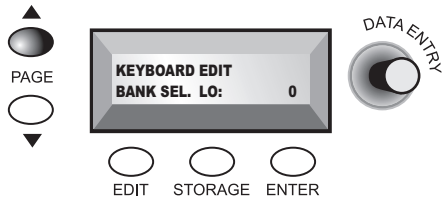
4)*PRESS* PAGE UP

Within each Patch a *Bank Select Low* message can be sent.

See your sound source manufacturer's manual for details.

SCREEN CHANGE

To adjust the **Bank Select Lo** use the ***DE*** knob.

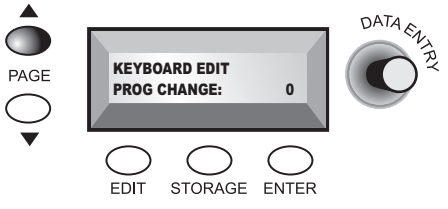


5)*PRESS* PAGE UP

You have the option to send out a *Program Change* within the Patch.

SCREEN CHANGE

To adjust the **Program Change** Value use the ***DE*** knob.

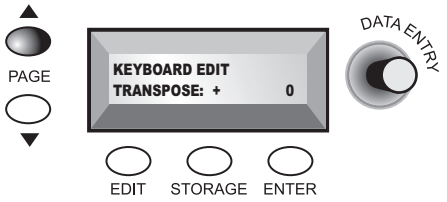


To adjust the **Transpose** value use the ***DE*** knob

6)*PRESS* PAGE UP

Transpose can be adjusted from 0 to +24 or 0 to -24

SCREEN CHANGE

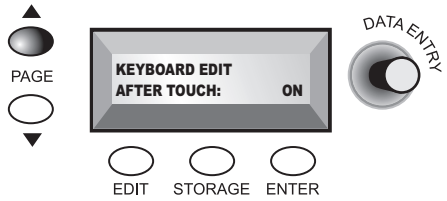


To adjust the **After Touch** value use the ***DE*** knob

7)*PRESS* PAGE UP

You have the option to program **After Touch** *on* or *off* for each Patch.

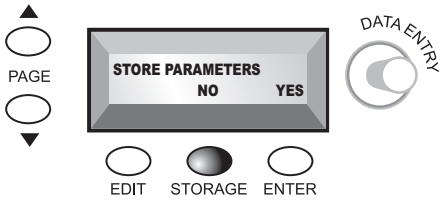
SCREEN CHANGE



6)*PRESS* STORAGE

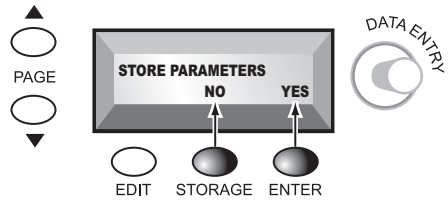
You are now going to save your Keyboard Assignments to a user preset.

SCREEN CHANGE



NOTE:

Storage and **Enter** buttons now function as **No** and **Yes** buttons.

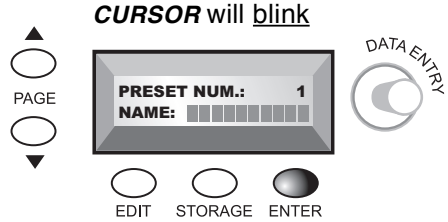


CURSOR will blink

7)*PRESS* ENTER (Yes)

In this example we'll choose **Yes.**

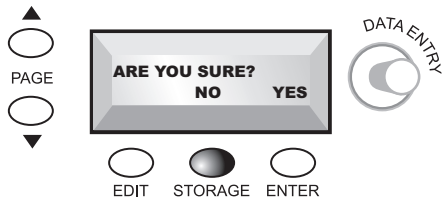
SCREEN CHANGE



8)*PRESS* STORAGE

The blinking cursor indicates preset number selection.

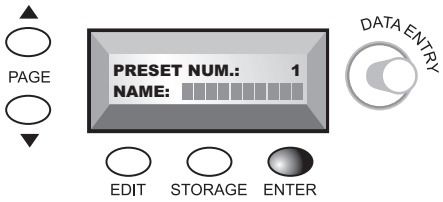
SCREEN CHANGE



9)*PRESS* ENTER (Yes)

Wait for the keyboard to *Scan Controls.*
You will now return to the **Preset** page.

SCREEN CHANGE



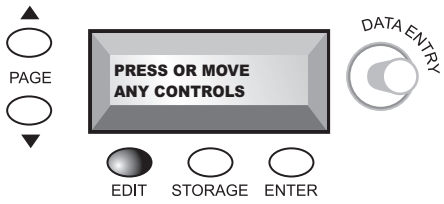
PROCEDURE: SLIDER / KNOB PROGRAMMING

We will set up a **SLIDER** to behave like an analog mixer fader. Fader Down>min. volume. Fader Up>Max. Vol.
Programing **KNOBS** follows the ***Exact*** same procedure.

TIP: Unlike an analog mixer you might not want your minimum volume to be 0 (no sound). You may just want a track to "sit" in the mix. Therefore you should choose a value greater than 0. For example, you may want to "ride" a guitar part and not want its volume to dip below a certain level in the mix. In that case set the **Min.** to a value that sounds good. Then when you pull the fader down you'll still hear the guitar without having to worry about fader position.
You can reverse this example for **Max** Values also.

1)*PRESS* EDIT

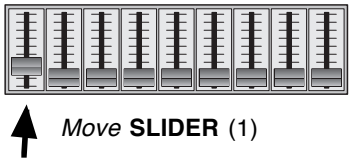
SCREEN CHANGE



2)*MOVE* SLIDER (KNOB)

In this example Move **SLIDER 1** w/**Bank A** Selected

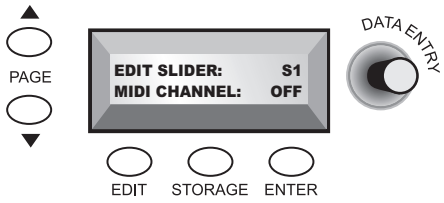
Remember : keep track of your **BANKS** when programing!



Move **SLIDER** (1)

SCREEN CHANGE

To adjust the **Midi Channel** use the ***DE*** knob

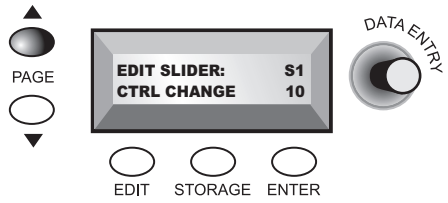


3)*PRESS* PAGE UP

In this example we'll use **CTRL Change** number 10. You may adjust this to any CTRL number you desire.

SCREEN CHANGE

To adjust the **CTRL Change** use the ***DE*** knob

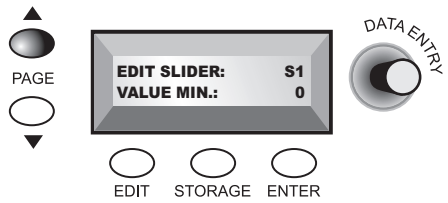


4)*PRESS* PAGE UP

Set the **Value Min.** to 0

SCREEN CHANGE

To adjust the **Value Min.** use the ***DE*** knob



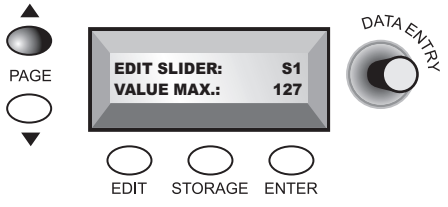
5)*PRESS* PAGE UP

Set the **Value Max.** to 127

In this example when the Slider is pushed UP it will increase to the Maximum allowed

SCREEN CHANGE

To adjust the **Value Max .** use the ***DE*** knob

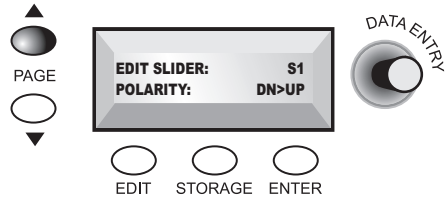


To adjust the **Polarity** value use the ***DE*** knob

6)*PRESS* PAGE UP

In this example select **DN>UP** When the Slider is in the *DOWN* position it will send a Value of O. when *UP* a Value of 127.

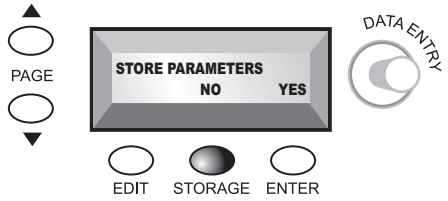
SCREEN CHANGE



7)*PRESS* STORAGE

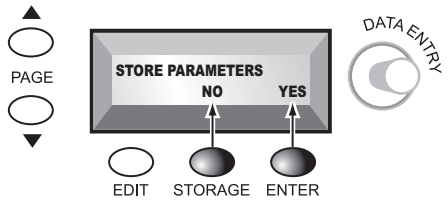
You are now going to save your program to a user preset.

SCREEN CHANGE



NOTE:

Storage and **Enter** buttons now function as **No** and **Yes** buttons.

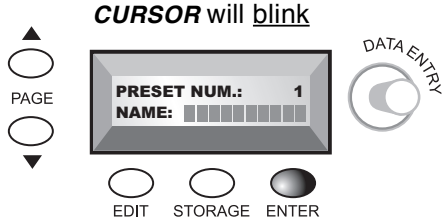


CURSOR will blink

8)*PRESS* ENTER (Yes)

In this example we'll choose **Yes.**

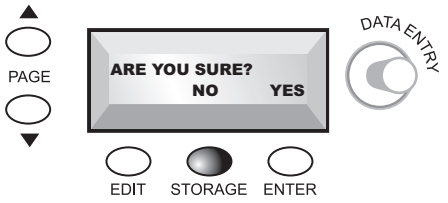
SCREEN CHANGE



9)*PRESS* STORAGE

The blinking cursor indicates preset number selection.

SCREEN CHANGE

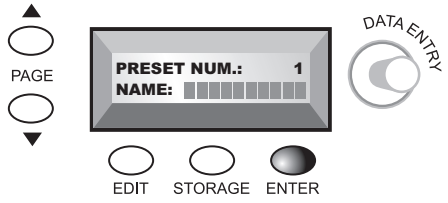


10)*PRESS* ENTER (Yes)

You will now return to the Preset page.

You have completed your first programing session! You will have to repeat these steps in order to program more sliders and knobs.

SCREEN CHANGE



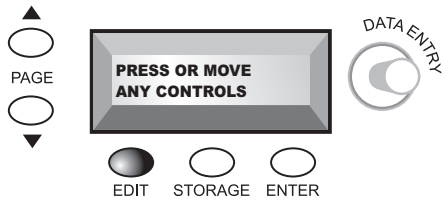
PROCEDURE: BUTTON PROGRAMMING

We will set up a **BUTTON** to behave like a simple ON/OFF switch, or Latch Switch. Press the **BUTTON** once and the *Switch* will be on. Press the **BUTTON** again and the *Switch* will be off. Programming ***Transport* BUTTONS** follows the exact same procedure.

TIP: This can be very useful to control the Mutes on your Audio/Sequencing program. Most Pro and Semi Pro Audio/Sequencing programs will allow you the option to control various functions of the program from an external controller, in this example, controlling the Mutes on your virtual mixer. (See your Program's manual for details.) Each **BUTTON** can behave like a *Latch,* used in this *Mute* example *(SWITCH MODE),* or like a *Momentary (PUSH MODE)* switch. A *Momentary switch* will only function when the **BUTTON** is held down. This is very useful for the **Fwd BUTTON** and **Rew BUTTON** in the *Transport* section.

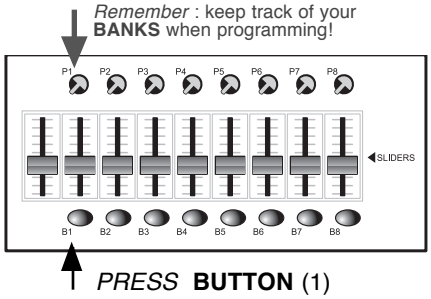
1)*PRESS* EDIT

SCREEN CHANGE



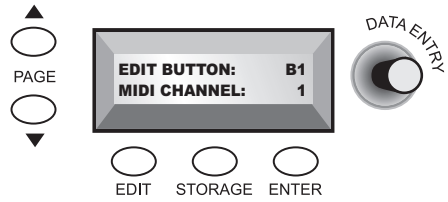
2)*PRESS* BUTTON

In this example, PRESS **BUTTON 1**
with **Bank A** Selected.
Set to Midi **Channel** 1



SCREEN CHANGE

To adjust the **Midi Channel**
use the ***DE*** knob

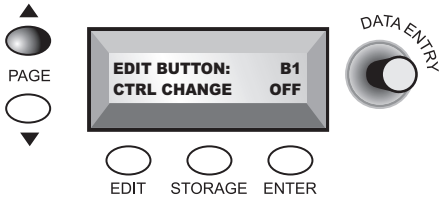


3)*PRESS* PAGE UP

In this example, we'll set
CTRL Change to **OFF**
You may adjust this to any
CTRL number you desire.

SCREEN CHANGE

To adjust the **CTRL Change**
value use the ***DE*** knob

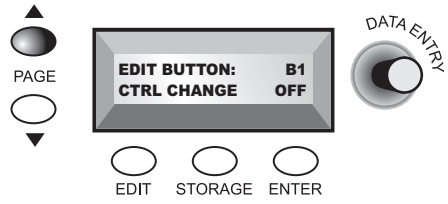


4)*PRESS* PAGE UP

Set the **Key Note** to 60.
Key range is 0-127

SCREEN CHANGE

To adjust the **Key Note.**
use the ***DE*** knob

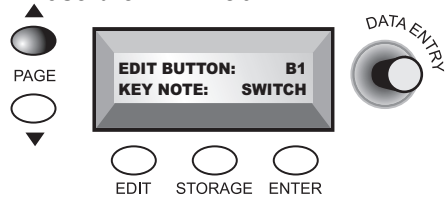


5)*PRESS* PAGE UP

SWITCH: Press button once,
a **NOTE ON** Message will transmit.
Switch is ON.
Press button again, a **NOTE OFF**
Message will transmit.
Switch is OFF.

SCREEN CHANGE

To adjust the **Key Note.**
use the ***DE*** knob

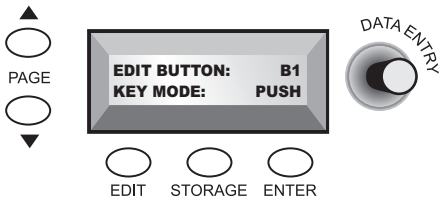


5) continued...

PUSH: will send a **Note on** Message when pushed down. When you release the button, a **Note off** Message will be sent. The **BUTTON** will only work when you are actually *Pushing* it down.

.

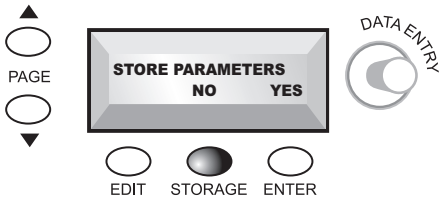
To adjust the **Key Mode .** use the ***DE*** knob



6) *PRESS* **STORAGE**

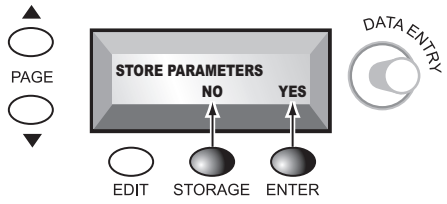
You are now going to save your program to a user preset.

SCREEN CHANGE



NOTE:

Storage and **Enter** buttons now function as **No** and **Yes** button's.

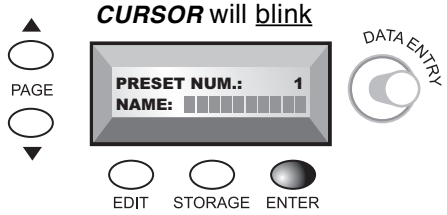


7) *PRESS* **ENTER (Yes)**

In this example we'll choose **Yes.**

SCREEN CHANGE

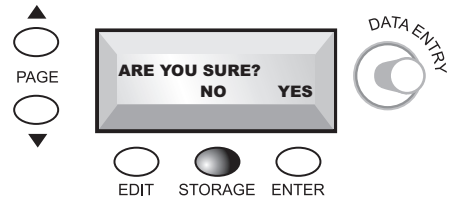
CURSOR will blink



8) *PRESS* **STORAGE**

The blinking cursor indicates preset number selection.

SCREEN CHANGE

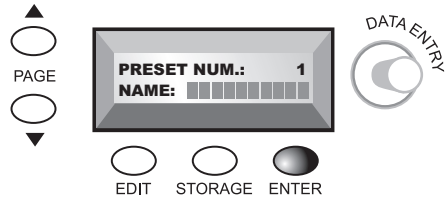


9) *PRESS* **ENTER (Yes)**

Wait for the keyboard to *Scan Controls.*

You will now return to the Preset page.

SCREEN CHANGE



You will have to repeat these steps in order to program more buttons.

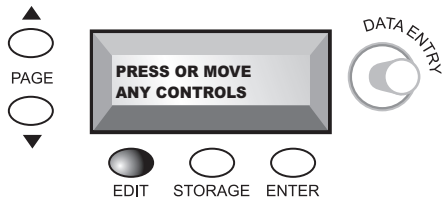
PROCEDURE: PEDAL PROGRAMMING

We will program **PEDAL INPUT 1** to transmit *Sustain*. For this procedure you will need a *Sustain Pedal.* Any polarity pedal will work.

TIP: The three **PEDAL INPUTS** may be programed to transmit anything from Sustain to Volume to even Modulation. A **PEDAL INPUT,** when connected to a *Volume Pedal* , can transmit the same CNTRL Values as the **SLIDERS** or **KNOBS.** Remember, you have three **PEDAL INPUTS** to work with. Imagine in a live set-up, two volume pedals set-up to control two *different* sounds. In our set-up you would program **PEDAL 1** so its *Polarity* would be DN>UP, and **PEDAL 2** so it's *Polarity* would be UP>DN. By pressing down on both volume pedals, you would fade out of one sound and fade into the other! All without awkward foot movement.

1)*PRESS* EDIT

SCREEN CHANGE



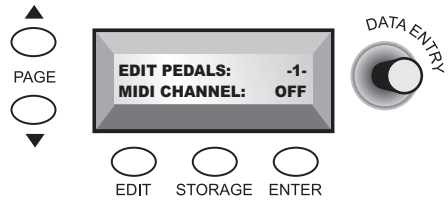
2)*PRESS* PEDAL

In this example set the **Midi Channel** to **1**

Remember the sustain Pedal must be plugged into PEDAL INPUT 1

SCREEN CHANGE

To adjust the **Midi Channel** use the ***DE*** knob

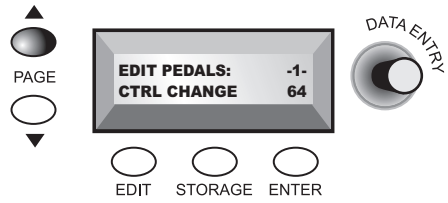


3)*PRESS* PAGE UP

We need to set the **CTRL Change** to **64** That's the Midi Spec for Sustain Pedal.

SCREEN CHANGE

To adjust the **CTRL Change** value use the ***DE*** knob

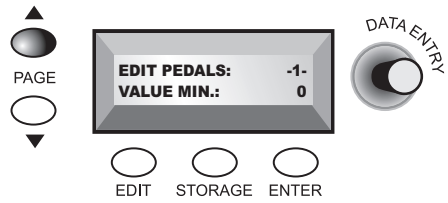


4)*PRESS* PAGE UP

Set the **Value Min.** to 0
In this case any Value below <64 will transmit an off Message.

SCREEN CHANGE

To adjust the **Value Min.** use the ***DE*** knob

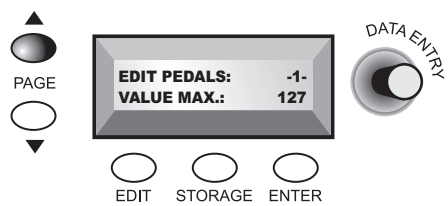


5)*PRESS* PAGE UP

Set the **Value Max.** to 127
In this case any Value above >64 will transmit an on Message.

SCREEN CHANGE

To adjust the **Value Max .** use the ***DE*** knob

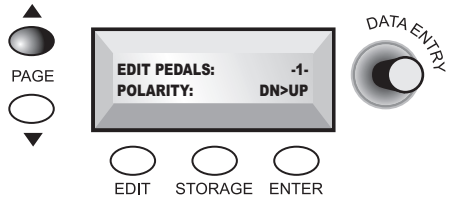


6)*PRESS* PAGE UP

This is where the flexibility of the VMK comes into play. You can adjust the **Polarity** to the *Pedal* that's being used. If there's sustain without the *Pedal* being depressed just adjust the **Polarity** on the VMK to fit the pedal.

SCREEN CHANGE

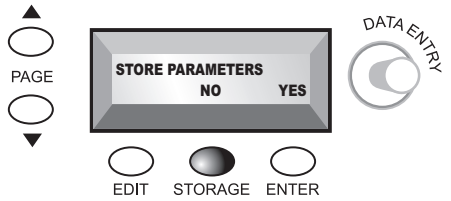
To adjust the **Polarity** value use the ***DE*** knob



7)*PRESS* STORAGE

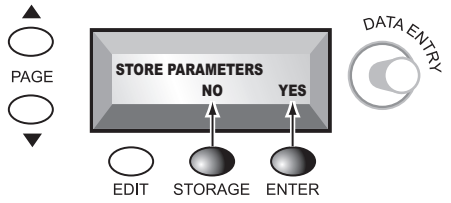
You are now going to save your program to a user preset.

SCREEN CHANGE



NOTE:

Storage and **Enter** buttons now function as **No** and **Yes** buttons.

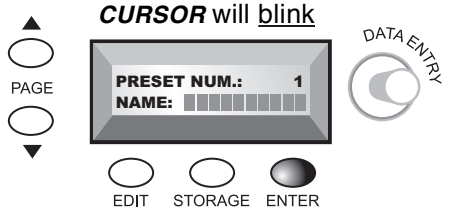


8)*PRESS* ENTER (Yes)

In this example we'll choose **Yes.**

SCREEN CHANGE

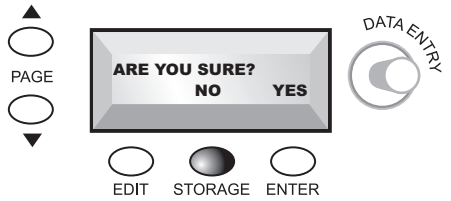
CURSOR will blink



9)*PRESS* STORAGE

The blinking cursor indicates preset number selection.

SCREEN CHANGE

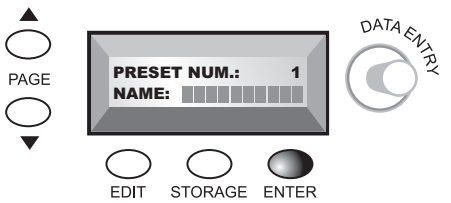


10)*PRESS* ENTER (Yes)

You will now return to the Preset page.

You will have to repeat these steps in order to program more pedals.

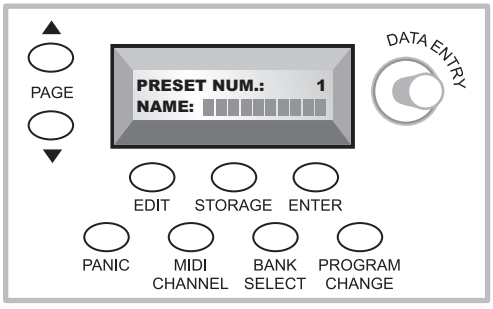
SCREEN CHANGE



PROCEDURE: LIVE EDIT

The ability to *quickly* send a **Program Change** or **Bank Select** change or change the **Midi channel** without *altering* the original Preset program.
In this example you will send a quick **Program Change** to your sound source. Sending a Bank Change or changing the Midi Channel, follows the ***EXACT*** same procedure. Although you will select those options in **step 1.**

Start from a program

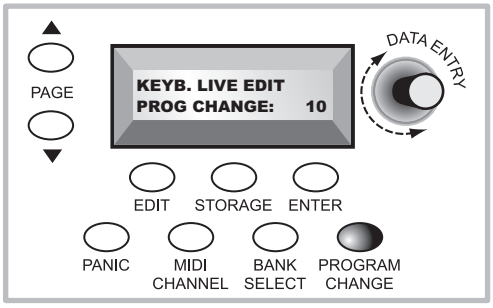


To adjust the **Prog Change** value use the ***DE*** knob

1)*PRESS*
Prog Change

You can press Midi Channel or Bank Select if those are the Messages you want to send

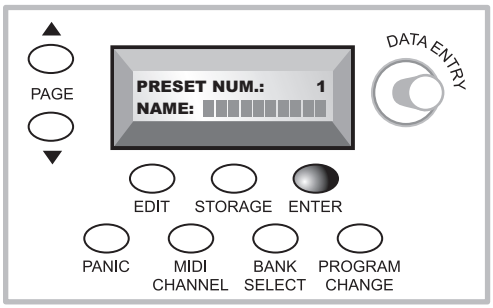
SCREEN CHANGE



2)*PRESS*
Enter

You will now return to the **Preset** page.

SCREEN CHANGE



That's it! **Live Edit** is an extremely easy but powerful function of the VMK-149/188.